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Eating on the Night Shift: A qualitative study to understand what is important to UK night workers when designing nutritional research

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The night-time economy contributed £93.7bn to the total UK economy in 2023⁽¹⁾ and relies on extensive employment of night workers. There is strong evidence to support the association between shift work, predominately involving night shifts, and adverse cardiometabolic health⁽²⁾. However, there are limited evidence based dietary guidelines available for night workers or nutritional practitioners⁽³⁾. Simulated shift work studies have significantly contributed to understanding how eating at night impacts physiology however, real world research is needed among shift workers. Engaging end users in research design is key to inform acceptable and feasible interventions.

The aim of the *Eating on The Night Shift* study (King's College London Ethics:LRM-22/23-35745) is to understand how UK night workers view working at night in relation to nutritional health and wellbeing and the barriers and enablers to participating in nutritional research studies.

Semi-structured qualitative interviews were undertaken with a convenience sample (n=18) of UK night workers between June and September 2023. Interviews were held virtually and covered experiences of working night shifts, perceptions about night work and health, and perceptions of, and barriers and facilitators of engagement with, nutritional research. All interviews were audio recorded and transcribed verbatim. Transcripts were coded using an inductive thematic analysis approach to identify overarching themes and sub-themes⁽⁴⁾.

Of the final sample 13 were female (72%), 39% worked a rotating shift pattern, 50% had worked night shifts for between one to three years and 39% were employed in the healthcare sector. Four overarching themes were identified 1) The consequences of night work on health and wellbeing: this theme included concerns about the impact on physical and psychological wellbeing and on cognitive function during night shifts, 2) Eating at night means a less healthy diet: this theme highlighted the concerns about less healthy diets at night and how night work impacts meal planning and eating patterns, 3) Working at night has wider knock-on effects: sub themes were related to the negative impact on physical activity, sleep and social networks and 4) Nutritional research is perceived as important but there are barriers – barriers discussed were related to workload and the ability to change eating patterns, identified enablers were clear study instructions and financial compensation.

The results suggest that night workers are aware of the negative long-term consequences working nights has on their health. Furthermore, efforts to maintain a healthy lifestyle are impeded by the nature of night work and its disruptions to the circadian rhythm. Although night workers support research to understand how diet during night work can impact long-term health, several barriers to taking part in research need to be considered in the design of research studies. This will ensure that studies are acceptable and feasible to the night shift population.

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References

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